README of BIOMASAR Products

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This documents provides a description of data products available on the BIOMASAR website.

For questions and data-related issues, please contact Maurizio Santoro.

SAR products

SAR products correspond to RGB color composites of average intensity (red), minimum backscatter (green) and temporal variability of the backscatter (blue) .

SAR RGB product is available for the pan-boreal product in form of a Google Earth overaly (kmz file).

The data used were Envisat ASAR ScanSAR images acquired between October 2009 and February 2011, with add-ons locally.

Projection: geographic; Pixel size: 0.01 degree

GSV products

GSV products correspond to the estimates of GSV with the BIOMASAR algorithm from hyper-temporal SAR data. For the pan-boreal product, a Google Earth overlay (kmz file) is also available.

A forest mask based on the GlobCover 2005 land cover has been used to mask out non-forest areas.

All raster maps are in geotiff format

Projection: geographic; Pixel size: 0.01 degree, WGS-84

Coordinates refer to the center of the pixel

The dataset consists of *.gsv.tiff and *obs.tiff files

"gsv" files refer to GSV estimates, forest mask applied

"obs" files refer to number of backscatter measurements used for retrieval (quality flag)

The pan-boreal product consists of 4 subsets

- North America

- Eurasia West (< 40 deg East)

- Eurasia Center (between 40 and 116 deg East)

- Eurasia East (> 116 deg East)

Legend of GSV estimates

> 0 : GSV estimate

-1000: missing data, too few SAR observations (< 10, see also legend of OBS values)

-9999: non-forest

Legend of OBS values

> 10 : Number of SAR observations used for GSV retrieval

Reliability of estimate:

- high if OBS values above 20

- moderate if OBS values between 10 and 20

0: Too few SAR observations used for GSV retrieval (actual values between 0 and 9)

-1: excluded by retrieval algorithm

NOTE: if GSV > 0 and OBS=0, GSV has been interpolated from adjacent pixels